

Amendments to the Claims

In the Claims:

1. (Currently amended) A coating composition, comprising the product of the reaction of:

a silane having at least one functional group selected from the group consisting of an isocyanate, an isothiocyanate, an ester, an anhydride, an acyl halide, an alkyl halide, an epoxide and an aziridine; and

a biopolymer,

wherein said product is [capable of] directly [coating] coated onto a surface of a substrate by covalent attachment of [said silane] a silicon atom to said substrate, and provided that said biopolymer is not a nucleic acid.

Claims 2 - 3 (cancelled).

4. (Previously presented) The coating composition of claim 1, wherein said functional group is an isocyanate.

5. (Previously presented) The coating composition of claim 4, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.

6. (Previously presented) The coating composition of claim 1, wherein said biopolymer is a complex selected from the group consisting of heparin-tridodecylmethylammonium chloride, heparin-benzalkonium chloride, heparin-

stearalkonium chloride, heparin-poly-N-vinyl- pyrrolidone, heparin-lecithin, heparin-didodecyldimethylammonium bromide, heparin-pyridinium chloride, and heparin-synthetic glycolipid complex.

7. (Previously presented) The coating composition of claim 1, wherein said biopolymer has hydroxyl or amine functional groups.

8. (Previously presented) The coating composition of claim 1, wherein said biopolymer comprises heparin.

9. (Previously presented) The coating composition of claim 7, wherein said biopolymer is provided in a form capable of dissolving in an organic solvent.

10. (Previously presented) The coating composition of claim 1, wherein the biopolymer provides thromboresistance.

11. (Previously presented) The coating composition of claim 1, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.

12. (Previously presented) The coating composition of claim 1, further comprising at least one additive selected from the group consisting of wetting agents, surface active agents and film forming agents.

13. (Previously presented) The coating composition of claim 1, wherein the silane has an organic chain between isocyanate and silane functional groups.

Claims 14 - 59 (cancelled).

60. (Currently amended) A coating composition, consisting essentially of the product of the reaction of:

a silane having at least one functional group selected from the group consisting of an isocyanate, an isothiocyanate, an ester, an anhydride, an acyl halide, an alkyl halide, an epoxide and an aziridine; and

a biopolymer,

wherein said product is directly bonded to a surface of a substrate, and provided that said biopolymer is not a nucleic acid.

61. (Previously presented) The coating composition of claim 60, wherein said functional group is an isocyanate.

62. (Previously presented) The coating composition of claim 61, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.

63. (Previously presented) The coating composition of claim 60, wherein said biopolymer is a complex selected from the group consisting of heparin-tridodecylmethylammonium chloride, heparin-benzalkonium chloride, heparin-

stearalkonium chloride, heparin-poly-N-vinyl-pyrrolidone, heparin-lecithin, heparin-didodecyldimethylammonium bromide, heparin-pyridinium chloride, and heparin-synthetic glycolipid complex.

64. (Previously presented) The coating composition of claim 60, wherein said biopolymer has hydroxyl or amine functional groups.

65. (Previously presented) The coating composition of claim 60, wherein said biopolymer comprises heparin.

66. (Previously presented) The coating composition of claim 60, wherein said biopolymer is provided in a form capable of dissolving in an organic solvent.

67. (Previously presented) The coating composition of claim 60, wherein the biopolymer provides thromboresistance.

68. (Previously presented) The coating composition of claim 60, wherein said biopolymer is heparin-tridodecylmethylammonium chloride.

69. (Previously presented) The coating composition of claim 60, further comprising at least one additive selected from the group consisting of wetting agents, surface active agents and film forming agents.

70. (Previously presented) The coating composition of claim 60, wherein said silane has an organic chain between isocyanate and silane functional groups.

71. (Previously presented) The coating composition of claim 1, wherein said silane and said biopolymer are reacted in a common solvent.

72. (Previously presented) The coating composition of claim 71, wherein said solvent is an anhydrous organic solvent.

73. (Previously presented) The coating composition of claim 72, wherein said solvent is tetrahydrofuran.

74. (Previously presented) The coating composition of claim 60, wherein said silane and said biopolymer are reacted in a common solvent.

75. (Previously presented) The coating composition of claim 74, wherein said solvent is an anhydrous organic solvent.

76. (Previously presented) The coating composition of claim 75, wherein said solvent is tetrahydrofuran.

77. (Previously presented) The coating composition of claim 71, wherein said functional group is an isothiocyanate, said biopolymer is heparin-tridodecylmethylammonium chloride, and said organic solvent is tetrahydrofuran.

78. (Previously presented) The coating composition of claim 74, wherein said functional group is an isothiocyanate, said biopolymer is heparin-tridodecylmethylammonium chloride, and said organic solvent is tetrahydrofuran.

Claim 79 (cancelled).